



CARIBBEAN CURRENTS

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Welcome...

...to **CARIBBEAN CURRENTS**, Volume Six, Number Three This newsletter is edited by INFOTERRA/USA in its capacity as the Regional Service Centre (RSC) for INFOTERRA National Focal Points (NFPs) in the English and French-speaking Caribbean. Although the *CURRENTS* is assembled at INFOTERRA/USA, the content belongs to you, the readers. You are encouraged to send in any questions, comments, problems, or interesting issues relevant to the Region for inclusion in the *CURRENTS*. Please see the Guidelines for Contributions on page 6 for more information.

Each issue will feature a Directory of NFPs in the Region so that anyone with international environmental questions can contact their nearest resource. Please feel free to contact one another as well as your RSC for assistance or materials.

Please don't hesitate to share *CARIBBEAN CURRENTS* with your friends and colleagues, and to make copies as needed. The Currents should serve as an informational forum for anyone who lives, works, or is involved in environmental issues in the English and French-speaking Caribbean Region.

Recycling

This issue's topic is recycling. Recycling is the use of materials, which would otherwise be discarded, to make new products. It helps conserve raw materials, reduce landfill waste, and decrease hazardous waste in the waste stream.

The next issue of **CARIBBEAN CURRENTS** will focus on water quality in Haiti. According to the World Health Organization, "every year more than five million people die from illnesses linked to unsafe drinking water..." In rural Haiti, a local stream may serve as the sole source of a community's water. Animal and human activities maintain a cycle of disease transmission that can only be broken by tapping clean water supplies and disposing of waste without contaminating the water supply.

If you have any comments on this topic, or would like to contribute a short article or have a resources guide to share, please submit your contribution following the guidelines on page 6, as we would like to include it in the next or a future issue of *CURRENTS*. Please feel free to fax, write to, or call the RSC with any questions or comments you have. Thank you for your assistance.

Recycling in the Caribbean

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The territories of the U.S. Virgin Islands and the Commonwealth of Puerto Rico fall under the jurisdiction of the Region 2 office of the U.S. Environmental Protection Agency (EPA). The EPA's waste management hierarchy begins with waste prevention, often referred to as source reduction or waste minimization, then recycling and re-use. Finally, waste that cannot be recovered is landfilled or incinerated.

EPA's effort in the Caribbean is to encourage and stimulate programs in waste prevention and recycling. Progress has been limited in the islands because of unique constraints in the form of fewer markets for recyclables on the islands, and the cost of exporting recyclables to markets off-island.

The Virgin Islands generates an estimated 180,000 tons per year. The solid waste generation is estimated at 10 pounds/person/day, approximately twice the national average of 4.5 pounds/ person/day. There are 2 operating municipal solid waste landfills, one on St. Croix and one on St. Thomas. They are owned and operated by the Government of the Virgin Islands. On St. John, there is a transfer station, where waste is shipped to St. Thomas. There are no tipping fees at the landfills. Some neighborhoods have curbside collection. Commercial carters charge businesses for hauling away waste, but are allowed to dump the waste at the landfills free of charge.

There is a recycling goal of 20% by the year 2000. Aluminum cans have been recycled for a number of years. The residents are paid 5 cents/can at the drop-off site. The recycled cans are exported. Recently, a glass bottle collection program was begun by a private company. Bottles are collected at a drop-off site, and the resident is paid 5 cents bottle. The glass is crushed and separated by size. The smallest size is sold to sand blasters on the island. Markets for the larger size cullet are now being sought on the island. This has created jobs for scavengers.

There is no official recycling program which would encompass collection of recyclables, separation and transporting them to end-markets. In the absence of tipping fees, encouraging voluntary source reduction is difficult.

A pilot curb-side collection is being planned for 2 neighborhoods (600 households) on St. Croix. Residents will be provided with a large container for garbage, and 2 smaller containers for aluminum cans and glass bottles. The pilot will evaluate the effectiveness of curb-side collection for recyclables.

EPA is funding the Anti-Litter and Beautification Commission to establish a recycling economic development advocate, who will promote recycling and establish end markets for the recyclables. The stimulation of recycling markets will potentially create on-island jobs and economic development in a much needed area.

A high percentage of trash is food/yard waste. EPA is currently funding a model backyard composting project in the Calquoon neighborhood on St. Croix. This project is being managed by the Department of Public Works, with the assistance of the University of the Virgin Islands and the VI Department of Agriculture.

Puerto Rico generates approximately 8100 tons/day of garbage. In Puerto Rico, the recycling rate increased from 8% in 1990 to 14% in 1997, with a goal of 35% by the year 2000. Waste generation is estimated at 4.5 pounds/person/day, comparable to the national rate.

Most of the 78 municipalities have launched recycling programs. The Solid Waste Management Authority of Puerto Rico (SWMA) gave each municipality \$50,000 in seed money to launch a recycling program. The actual recycling program in fact costs more than this, which is a concern to many municipalities. Most recyclables are collected at one of 80 drop-off centers staffed by attendants offering educational information and assistance. 44 municipalities

have blue bag programs. Household recyclables such as glass, plastic, and aluminum are placed in one bag, picked up on a designated day, and sorted at a processing facility. Paper is placed in a separate bag and picked up one day a week. Also recycled are cardboard, metal, oil and tires. In 1995, 300,050 tons of recyclable material was recovered. Since then, the recycling rate seems to have leveled off. SWMA also gives educational chats to the public in schools, businesses and government agencies.

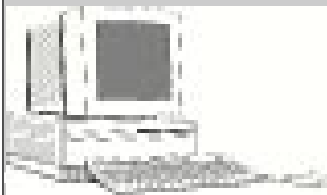
In Puerto Rico, the Solid Waste Management Authority, which is responsible for recycling, has written a Regional Plan for Waste Management. To facilitate recycling and composting, the plan includes the establishment of material recovery facilities (MRF), bulky waste facilities, yard waste mulching plants and yard waste composting facilities around the islands. Puerto Rico amended legislation to facilitate investment in recycling and waste management companies such as Environmental Plastics of Puerto Rico, Inc., BioOrganics, Inc., Battery Recycling Inc. A Recycling Trust Fund of \$5,000,000 was established to help municipalities and private entities establish local recycling programs. The Industrial Incentives Law was amended to provide recycling industries with up to 90% tax break for 20 years anywhere on the island. Amendments to the Tax Law allow up to 50% tax deduction on investments made in recycling industries. The Litter Prevention Law sets fines for illegal dumping. New laws govern the management and recycling of used tires (PDS 499) and the management and recycling of used motor oil (PDS 1168).

Sources

John Green, Virgin Islands Anti-Litter and Beautification Commission

Ana Manatou, Recycling Branch, Puerto Rico Solid Waste Management Authority

Solid Waste Management in Puerto Rico, a Presentation Before USEPA Region 2 Regional Administrator, August 12, 1996, by D. Pagan Rosa, Executive Director, Solid Waste Management Authority.



INTERNET SITES ON RECYCLING

A few of many sources of electronic information on recycling

EPA OSWER RECYCLING PAGE (NON-HAZARDOUS WASTE)

<http://www.epa.gov/epaoswer/non-hw/recycle/index.htm>

This site has a “quick link” to other US EPA documents/materials on recycling, a link to the “Jobs Through Recycling Document” and general information about recycling.

EPA RECYCLING HAZARDOUS WASTE PAGE

<http://www.epa.gov/epaoswer/osw/hazwaste.htm#recycle>

These sites provide links to documents on recycling hazardous waste.

GLOBAL RECYCLING NETWORK

<http://grn.com/grn/>

This site provides links to directories of recycling industry homepages; a “newstand” with directories and homepages of industry magazines, an “Associations and Organizations” directory, and information on current prices of recyclable commodities.

RECYCLERS WORLD

<http://www.recycle.net/recycle/>

This site has marketing and recyclable commodities information by categories (automobiles, plastics, etc.) and links to other Internet resources and recycling associations.

EARTH SYSTEMS

<http://www.earthsystems.org/>

This site provides links to environmental organizations and electronic discussion lists.

VIRTUAL RECYCLING PAGE

<http://www.virtualrecycling.com/>

This site provides links to recycling fact sheets and educational materials - plus a teacher’s page and info. for kids.

RECYCLING INSIGHTS PAGE

<http://www.recycling-insights.com/index.html>

This commercial page features free software on recycling and waste management for downloading.

CYGNUS GROUP

<http://www.cygnus-group.com/>

This site has recycling and waste reduction information and an electronic newsletter.

FREE US EPA PUBLICATIONS ON RECYCLING

Biosolids Recycling: Beneficial Technology for a Better Environment. **EPA 832R94009.**

Catalog of Hazardous and Solid Waste Publications. **EPA 530B97003**

Environmental Fact Sheet: Principles for Basel Convention Aim to Prevent Pollution, Reduce Risk and Promote Recycling. **EPA 530F94001.**

Fact Sheet: How to Start or Expand a Recycling Collection Program. **EPA 53094007.**

Federal Recycling Program. **EPA 530F92014.**

How to Set Up a Local Program to Recycle Used Oil. **EPA 530SW89039A.**

Jobs Through Recycling Program. **EPA 530F98001.**

Manufacturing from Recyclables: 24 Case Studies of Successful Recycling Enterprises. **EPA 530R95001.**

Measuring Recycling: EPA's Voluntary Standard Method. **EPA 530F97048.**

Recycling: Closing the Loop. **EPA 530K95007.**

Recycling Means Business. **EPA 530K95004.**

Waste Prevention, Recycling and Composting Options: Lessons from 30 Communities.

WasteWi\$e Tip Sheet: Buying or Manufacturing Recycled Products. **EPA 530F94005.**

These publications are available from the National Center for Environmental Publications and Information (NCEPI):

NCEPI
US Environmental Protection Agency
P.O. Box 42419
Cincinnati, Ohio 45242-2419
USA
Telephone: (513) 489-8190
Fax: (513) 489-8695
Orders take 2-3 weeks to process.

HOTLINES

The following EPA hotline provides information about solid waste management issues.

Resource Conservation and Recovery Act (RCRA) Hotline

Telephone: (703) 412-9810

Hours: Monday - Friday 9:00am-6:00pm EST

Current Conferences Recycling



July 7-10, 1998 -- *International Conference on New Perspectives in Waste Management*, World Trade Center, Kempton Park, South Africa; telephone: 27 11 787 1151; fax: 27 11 787 1086.

September 14-16, 1998 -- *17th Annual National Recycling Congress*, Albuquerque, New Mexico. Contact the National Recycling Coalition at 1727 King Street, Alexandria, Virginia 22314-2720; telephone: (703) 683-9025.

September 27-30 -- *6th Annual Construction Materials Recycling Seminar*, Dallas, Texas. Contact Intertec Trade Shows at telephone: (800) 288-8606 or (303) 220-0600

October 26-29, 1998 -- *Wastecom '98*, Charlotte, North Carolina. Contact the Solid Waste Association of North America at P.O. Box 7219 Silver Spring, Maryland 20907-7219; telephone: (301) 585-2898.

INDUSTRY JOURNALS

Recycling Times (ISSN 1042-0614) - Covers commercial & municipal solid waste recycling.

Recycling World (No ISSN) - Free newsletter of the Environmental Defense Fund.

Recycling Today (ISSN 0887-6649) - Covers the scrap recycling market.

Waste Age (ISSN 0043-1001) - Trade publication of the National Solid Wastes Management Association.

Waste Minimization & Recycling Report (ISSN 0890-5509) - Reports & studies on waste reduction programs.

Waste Recovery Report (ISSN 0889-0072) - Covers resource recycling.

Guidelines for Contributions to *CARIBBEAN CURRENTS*

Any organization or individual operating or involved in the English and French-speaking Caribbean Region is welcome to contribute to the newsletter. Contributions should be addressed to:

Caribbean Currents Coordinator
INFOTERRA/USA
U.S. Environmental Protection Agency
Headquarters Library, 3404
401 M Street, S.W.
Washington, D.C. 20460
UNITED STATES

Telephone: (202) 260-5917; Fax: (202) 260-3923; E-mail: library-infoterra@epamail.epa.gov

Please note that submissions should meet the following criteria:

- They should be relevant to environmental issues
- They must be of interest to or directly involve the Region
- They must not endorse or recommend any product or commercial service, explicitly or implicitly
- They must be brief--under 250 words; Bulletin Board requests should be under 100 words
- They must be received by the posted deadline (see below)

Please feel free to contact the *CARIBBEAN CURRENTS* coordinator if you are interested in submitting a longer article. You should contact the coordinator to discuss your topic and any size or content restrictions beforehand. Be aware that once your article is submitted, it is subject to editing as needed. Final decisions on editing and inclusion of any contributions are left to the INFOTERRA/USA Manager. Please contact INFOTERRA/USA using the address above to contribute any comments, questions, problems, or ideas.

DEADLINE FOR CONTRIBUTIONS TO Vol. 6, No. 4: September 8, 1998

Welcome to The *CARIBBEAN CURRENTS* Bulletin Board

Each issue, we will publish questions or concerns of interest to CURRENTS readers. Anyone who has materials or information that they are seeking or that they feel will be helpful should feel free to contribute. We will post queries and offerings of general interest on the Bulletin Board. You may respond by contacting the reader who has placed the item, or the RSC.

Bulletin Board



Government Organizations

**US EPA Region 2
Caribbean Environmental
Protection Division**
Centro Europa Building Suite 417
1492 Ponce de Leon Avenue
San Juan, Puerto Rico 00907-4127
Telephone: (787) 729-6951
Fax: (787) 729-7747
Internet: [http://www.epa.gov/
region02/cepd/compnum.htm](http://www.epa.gov/region02/cepd/compnum.htm)

**Puerto Rico Solid Waste
Management Authority**
Recycling Division
Telephone: (800) 981-7324



Recycling Industry Associations

Caribbean Recycling Foundation
HC 71 Box 7605
Cayey, Puerto Rico 00736
Telephone: (787) 731-7639
Fax: (787) 731-1780
E-mail: crf@usa.net
Internet: [http://
ourworld.compuserve.com/homepages/
crf/](http://ourworld.compuserve.com/homepages/crf/)

Bureau of International Recycling
24 Rue du Lombard, Bte. 14
Brussels B-1000 Belgium
Telephone: (32-2) 514-2180
Fax: (32-2) 514-1226
E-mail: bir@bir.org
Internet: <http://www.bir.org/>

Caribbean Currents is available on the Internet at <http://www.epa.gov/earlink1/currents/>

About the NFP Directory

This directory reflects changes and additions to the INFOTERRA Directory of National Focal Points distributed by INFOTERRA/PAC, dated January 1997. Please check this information to verify that it is correct and up-to-date. If you have any changes or corrections, please notify the RSC as soon as possible. We will be happy to relay the information to the PAC.

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Mrs. Vanesta Moses-Felix
Government Documentalist
Ministry of Planning, Development and Environment
National Documentation Center
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